

13 5 6 7 11 12 14
26. (Amended) An image-forming apparatus according to any one of
claims ~~3, 4, 5, 6, 7, 11, 14, 16, 19~~ and ~~21~~, wherein said electron-emitting devices are cold cathode
devices.

27. (Not Amended) An image-forming apparatus according to claim 26,
wherein said cold cathode devices are surface conduction electron-emitting devices.

REMARKS

Claims 3-6, 9, 11, 14-23, 26 and 27 are presented for consideration, with
Claims 3, 5, 6, 11, 14, 16, 19 and 21 being independent.

The specification and abstract have been reviewed and amended to correct
minor informalities and improve their idiomatic English form.

With respect to the claims, Applicants note with appreciation that Claims 3-6,
9, 11, 13/11, 14-22, 26 and 27 were indicated as containing patentable subject matter and would
be allowed if placed in independent form. Based on this indication, Claims 3, 5, 14, 16 and 19
have been rewritten in independent form. In addition, Claims 9, 11 and 21 are now independent,
but were not rewritten to include their respective intervening claims as discussed in detail below.

Initially, Claims 4 and 13 were rejected under 35 U.S.C. §112, second
paragraph, as allegedly being indefinite. As will be appreciated, Claim 4 has been amended to
now depend from Claim 3 and thus provides sufficient antecedent basis for "said anti-static
film." Claim 13 has been cancelled. Accordingly, reconsideration and withdrawal of this
rejection is deemed to be in order and such action is respectfully requested.

Claims 1, 2, 7, 8, 10, 12, 13/12 and 23-25 stand rejected under 35 U.S.C. §102(b) or 35 U.S.C. §103 in view of Toshiichi (JP '455). These rejections are respectfully traversed.

As noted above, all of the rejected claims with the exception of Claim 23 have been cancelled. Claim 23 has been amended to depend from each independent claim. This rejection is therefore deemed to be moot and should be withdrawn.

Moreover, independent Claims 9, 11 and 21 are also submitted to be patentable over the cited art.

Claims 9, 11 and 21 have been amended to include the features of Claim 1, and thus relate to an image-forming apparatus comprised of an envelope, an electron source and an image-forming member arranged within the envelope, an electron source drive circuit, and an electroconductive member arranged on an inner surface of the envelope between the electron source and the image-forming member. In addition, an electric circuit flow path A extends between the electroconductive member and the ground passing through the electron source and the drive circuit, wherein the electric current flow path A has a resistance lower than the resistance of another electric current flow path B extending between the electroconductive member and the ground by way of the electron source or the drive circuit.

Claim 9 further features the electron source being entirely surrounded by the electroconductive member.

In Claim 11, the electric current flow path A has a conductor terminal abutting against the electroconductive member, and a conductive terminal is drawn out of the envelope through a substrate side thereof where the image-forming member is arranged.

Claim 21 includes the features of the image-forming member being arranged opposite to the electron source, and the electroconductive member being arranged on a substrate side of the envelope where the electron source is arranged. Additionally, the envelope carries an electroconductive film having a specified sheet resistance on the inner wall surface thereof.

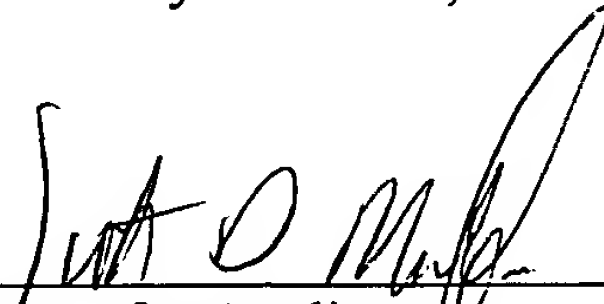
Toshiichi relates to an image forming apparatus that includes a conductive film 6 on an inner surface of surface glass vessel 2. In addition, a grounding terminal 7 is electrically connected to the film on the inner surface of the vessel by a conductive adhesive 8. Toshiichi fails, however, to teach or suggest the features of Claims 9, 11 and 21 as discussed above.

Accordingly, it is submitted that Applicants' invention as set forth in the independent claims is patentable over the cited art. In addition, the dependent claims add additional features of Applicants' invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO SPECIFICATION

Please substitute the paragraph starting at page 1, line 9 and ending at line 11, with the following paragraph.

--CRTs (cathode ray tubes) are typical image-forming apparatus that utilize electron beams and have been used widely [long since].--

Please substitute the paragraph starting at page 1, line 12 and ending at page 2, line 5, with the following paragraph.

--In recent years, flat type display apparatus using liquid crystal have been [getting] gaining popularity, and gradually replacing [gradually] CRTs. However, they are not emission type and accompanied by a number of problems including the need of a back light, and hence there has been a strong demand for emission type display apparatus. While plasma displays are commercially available currently as emission type displays, they are based on a principle different from CRTs for light emission and are not comparable in terms of the contrast of the displayed image and the coloring performance of the apparatus. Meanwhile, efforts have been paid for research and development in the field of realizing a flat type image-forming apparatus by arranging a plurality of electron-emitting devices that is comparable with a CRT in terms of the quality of the displayed image. For example, Japanese Patent Application Laid-Open No. 4-163833 discloses a flat type electron beam image-forming apparatus realized by containing linear thermionic cathodes and complex electrode structures in a vacuum envelope.--

Please substitute the paragraph starting at page 5, line 1 and ending at line 3,
with the following paragraph.

--Thus, there exists a need for improving image-forming apparatus if they are
to be made ever thinner because of the risk of electric discharge [rises high].--

Please substitute the paragraph starting at page 6, line 23 and ending at line 26,
with the following paragraph.

--FIG. 1 is a schematic plan view of an embodiment of an image-forming
apparatus according to the invention, showing the arrangement of the rear plate and the support
frame.--

Please substitute the paragraph starting at page 7, line 21 and ending at line 23,
with the following paragraph.

--FIGS. 7A and 7B are schematic partial views of another embodiment of an
image-forming apparatus according to the invention.--

Please substitute the paragraph starting at page 8, line 14 and ending at line 17,
with the following paragraph.

--FIGS. 12A and 12B are a plan view and a partial cross sectional view
schematically showing another embodiment of an image-forming apparatus according to the
invention.--

Please substitute the paragraph starting at page 8, line 18 and ending at line 20,
with the following paragraph.

--FIG. 13 is a schematic plan view of still another embodiment of an image-
forming apparatus according to the invention.--

Please substitute the paragraph starting at page 8, line 21 and ending at line 24,
with the following paragraph.

--FIG. 14 is a schematic plan view of still another embodiment of an image-
forming apparatus according to the invention.--

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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO THE ABSTRACT

Please substitute the paragraph starting at page 56, line 2 and ending at line 15, with the following paragraph.

--An image-forming apparatus [comprises] includes an envelope, an electron source and an image-forming member arranged within the envelope, as well as an electron source drive circuit. An electroconductive member is arranged on the inner wall surface of the envelope between the electron source and the image-forming member. An electric current flow path A is formed as extending between the electroconductive member and the ground without passing through any of the electron source and the drive circuit. The electric current flow path A has a resistance lower than the resistance of another electric current flow path B extending between the electroconductive member and the ground by way of the electron source or the drive circuit.--



VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. Cancelled.

2. Cancelled.

3. (Amended) An image-forming apparatus [according to claim 1,]

comprising

an envelope;

an electron source and an image-forming member arranged within said

envelope;

an electron source drive circuit;

an electroconductive member arranged on an inner wall surface of said

envelope between said electron source and said image forming member; and

an electric circuit flow path A extending between said

electroconductive member and the ground passing through said electron source and said drive

circuit, wherein

said electric current flow path A has a resistance lower than the

resistance of another electric current flow path B extending between said electroconductive

member and the ground by way of said electron source or said drive circuit, and

wherein said envelope carries an anti-charge film arranged on [the] said
inner wall surface thereof.

4. (Amended) An image-forming apparatus according to claim [1] 3,
wherein said anti-charge film is electrically connected to said electroconductive member.

5. (Amended) An image-forming apparatus [according to claim 1,]
comprising:

an envelope;

an electron source and an image-forming member arranged within said
envelope;

an electron source drive circuit;

an electroconductive member arranged on an inner wall surface of said
envelope between said electron source and said image forming member; and

an electric circuit flow path A extending between said
electroconductive member and the ground passing through said electron source and said drive
circuit, wherein

said electric current flow path A has a resistance lower than the
resistance of another electric current flow path B extending between said electroconductive
member and the ground by way of said electron source or said drive circuit, and

wherein said envelope carries an electroconductive film having a sheet
resistance between $10^8\Omega/\square$ and $10^{10}\Omega/\square$ on [the] said inner wall surface thereof.

7. Cancelled.

8. Cancelled.

9. (Amended) An image-forming apparatus [according to claim 8,]

comprising:

an envelope;

an electron source and an image-forming member arranged within said

envelope;

an electron source drive circuit;

an electroconductive member arranged on an inner wall surface of said
envelope between said electron source and said image forming member; and

an electric circuit flow path A extending between said
electroconductive member and the ground passing through said electron source and said drive
circuit, wherein

said electric current flow path A has a resistance lower than the
resistance of another electric current flow path B extending between said electroconductive
member and the ground by way of said electron source or said drive circuit, and

wherein said electron source is entirely surrounded by said
electroconductive member.

10. Cancelled.



11. (Amended) An image-forming apparatus [according to claim 10,]

comprising:

an envelope;

an electron source and an image-forming member arranged within said

envelope;

an electron source drive circuit;

an electroconductive member arranged on an inner wall surface of said

envelope between said electron source and said image forming member; and

an electric circuit flow path A extending between said

electroconductive member and the ground passing through said electron source and said drive

circuit, wherein

said electric current flow path A has a resistance lower than the

resistance of another electric current flow path B extending between said electroconductive

member and the ground by way of said electron source or said drive circuit,

said electric current flow path A has a conductor terminal abutting

against said electroconductive member, and

9. > wherein said conductor terminal is drawn out of [the] said envelope
through [the] a substrate side thereof where [the] said image-forming member is arranged.

12. Cancelled.

13. Cancelled.

14. (Amended) An image-forming apparatus [according to claim 8,
comprising:
- an envelope;
- an electron source and an image-forming member arranged within said
- envelope;
- an electron source drive circuit;
- an electroconductive member arranged on an inner wall surface of said
- envelope between said electron source and said image forming member; and
- an electric circuit flow path A extending between said
- electroconductive member and the ground passing through said electron source and said drive
- circuit, wherein
- said electric current flow path A has a resistance lower than the
- resistance of another electric current flow path B extending between said electroconductive
- member and the ground by way of said electron source or said drive circuit,
- said image-forming member is arranged opposite to said electron
- source and said electroconductive member is arranged on a substrate side of said envelope where
- said electron source is arranged, and
- [wherein] said image-forming member has an accelerator electrode for
accelerating the electrons emitted from [the] said electron source and [the] a voltage applying
terminal of [the] said accelerator electrode is drawn out of [the] said envelope through [the] a
substrate side thereof where [the] said electron source is arranged.

16. (Amended) An image-forming apparatus [according to claim 8,]
comprising:
an envelope;
an electron source and an image-forming member arranged within said
envelope;
an electron source drive circuit;
~~an electroconductive member arranged on an inner wall surface of said~~
envelope between said electron source and said image forming member; and
an electric circuit flow path A extending between said
electroconductive member and the ground passing through said electron source and said drive
circuit, wherein
said electric current flow path A has a resistance lower than the
resistance of another electric current flow path B extending between said electroconductive
member and the ground by way of said electron source or said drive circuit,
said image-forming member is arranged opposite to said electron
source and said electroconductive member is arranged on a substrate side of said envelope where
said electron source is arranged, and
[wherein] said image-forming member has an accelerator electrode for
accelerating the electrons emitted from [the] said electron source and [the] a voltage applying
terminal of [the] said accelerator electrode is drawn out of [the] said envelope through [the] a
substrate side thereof where [the] said image-forming member is arranged.

17. (Amended) An image-forming apparatus according to [any of claims] claim 14 [through 16[or 15, wherein an insulator is arranged between said voltage applying terminal of [the] said accelerator electrode and the side through which it is drawn out.

18. (Amended) An image-forming apparatus according to claim 17, wherein said electroconductive [membmer] member is arranged [around the site through which ~~the] proximate to where said voltage applying terminal of [the] said accelerator electrode is~~ drawn out with said insulator disposed therebetween.

19. (Amended) An image-forming apparatus [according to claim 8,]
comprising:
an envelope;
an electron source and an image-forming member arranged within said
envelope;
an electron source drive circuit;
an electroconductive member arranged on an inner wall surface of said
envelope between said electron source and said image forming member; and
an electric circuit flow path A extending between said
electroconductive member and the ground passing through said electron source and said drive
circuit, wherein

said electric current flow path A has a resistance lower than the resistance of another electric current flow path B extending between said electroconductive member and the ground by way of said electron source or said drive circuit,

said image-forming member is arranged opposite to said electron source and said electroconductive member is arranged on a substrate side of said envelope where said electron source is arranged, and

wherein said envelope carries an anti-charge film arranged on [the] said inner wall surface thereof.

21. (Amended) An image-forming apparatus [according to claim 19],
comprising
an envelope:
an electron source and an image-forming member arranged within said envelope,
an electron source drive circuit;
an electroconductive member arranged on an inner wall surface of said envelope between said electron source and said image-forming member, and
an electric circuit flow path A extending between said electroconductive member and the ground passing through said electron source and drive circuit,
wherein

said electric current flow path A has a resistance lower than the resistance of another electric current flow path B extending between said electronconductive member and the ground by way of said electron source or said drive circuit,

said image-forming member is arranged opposite to said electron source and said electroconductive member is arranged on a substrate side of said envelope where said electron source is arranged, and

9. > ~~[wherein] said envelope carries an electroconductive film having a~~
sheet resistance between $10^8 \Omega/\square$ and $10^{10} \Omega/\square$ on [the] said inner wall surface thereof.

22. (Amended) An image-forming apparatus according to claim 21, wherein said electroconductive film [in] is electrically connected to said electroconductive member.

23. (Amended) An image-forming apparatus according to [claim 8] any one of claims 3, 5, 9, 11, 14, 16, 19 and 21, wherein said electric current flow path A has a resistant not greater than 1/10 of the resistance of said electric current flow path B.

24. Cancelled.

25. Cancelled.

26. (Amended) An image-forming apparatus according to [claim 24 or 25]
any one of claims 3, 5, 9, 11, 14, 16, 19 and 21, wherein said electron-emitting devices are cold
cathode devices.

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